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- (54) [Title of the Invention] ONLINE PAYMENT SYSTEM
- (57) [Abstract]

[Problem To Be Solved] To provide an online payment system that enables users to select an arbitrary payment method.

[Solution] In a storage means 13 of a payment server 10, membership numbers and passwords and payment information including payment codes and payment type codes are stored as membership information. When a user selects an item of goods to buy and enters his or her membership number and password via a user terminal 20, the payment server 10 performs authentication according to the entered membership number and password and, if authentication is OK, carries out payment for the item that the user purchased. At this time, multiple entries of payment information are registered. If one of the

entries is not selected beforehand, the registered entries of payment information are displayed on the user terminal 20, allowing the user to select one or more entries of payment information. The payment server 10 carries out payment, according to the selected entry or entries of payment information. If multiple entries of payment information are selected, combination payment is performed, according to the selected multiple entries of information.

[Claims]

[Claim 1] An online payment system comprising a payment server and a plurality of terminal devices connected to said payment server via a communications line, said payment server including a storage means storing user ID numbers and passwords and a plurality of entries of payment information per user, wherein, when a payment request including a user ID number and password is input to a terminal device which is one of said terminal devices, if the entered user ID number and password matches with those stored in said storage means, said payment server carries out payment, according to payment information selected beforehand out of the plurality of entries of payment information associated with the user ID number.

[Claim 2] The online payment system according to claim 1, wherein said payment server carries out combination payment, according to two or more entries of payment information selected beforehand.

[Claim 3] An online payment system comprising a payment server and a plurality of terminal devices connected to said payment server via a communications line, said payment server including a storage means storing user ID numbers and passwords and a plurality of entries of payment information per user, wherein, when a payment request including a user ID number and password is input to a terminal device which is one of said terminal devices, if the entered user ID number and password matches with those stored in said storage means, said payment server sends entries of payment information associated with the user ID

number, stored in said storage means, to said terminal device and carries out payment according to payment information selected on said terminal device, wherein said terminal device outputs the entries of payment information received from said payment server to allow for the selection of one or more of the entries.

[Claim 4] The online payment system according to claim 3, wherein said terminal device, upon a click on an option to select one entry of payment information, outputs the entries of payment information received from said payment server to allow for the selection of one entry of payment information and sends the selected one entry of payment information to said payment server, upon a click on an option to select multiple entries of payment information, outputs the entries of payment information received from said payment server to allow for the selection of multiple entries of payment information and sends the selected multiple entries of payment information to said payment server, and said payment server, when having received one entry of payment information from said terminal device, carries out payment according to the one entry of payment information received, when having received multiple entries of payment information from said terminal device, carries out combination payment according to the multiple entries of payment information received.

[Claim 5] The online payment system according to claim 3, wherein said terminal device outputs the entries of payment information received from the payment server to allow for the

selection of one or more of the entries, if one entry of payment information is selected, sends the selected one entry of payment information to said payment server, if multiple entries of payment information are selected, sends the selected multiple entries of payment information to said payment server, and said payment server, when having received one entry of payment information from said terminal device, carries out payment by the one entry of payment information received, when having received multiple entries of payment information from said terminal device, carries out combination payment by the multiple entries of payment information received.

[Claim 6] The online payment system according to claim 2, 4, or 5, wherein said payment server carries out combination payment, according to selected multiple entries of payment information and payment accounts assigned to the entries of payment information.

[Claim 7] The online payment system according to any of claims 1 to 6, wherein payment information stored in said storage means includes payment type codes and payment codes.

[Claim 8] The online payment system according to any of claims 1 to 7, wherein said terminal device, upon a click for registration of an entry of payment information, displays a registration screen for a type of payment corresponding to the entry of payment information to be registered, and said payment server stores the entry of payment information including a payment code entered on said registration screen and a payment type code specific to the registration screen in association

with the user ID number into said storage means.

[Detailed Description of the Invention]

[0001]

[Technical Field To Which the Invention Pertains] The present invention relates to an online payment system enabling consumers to purchase goods and pay for the purchased goods on line via a communications line.

[0002]

[Prior Art] Recently, it has become possible for consumers to purchase goods via a communications line. In such an online purchase system, users have to register how to pay for online purchases as well as their identification number (membership number) and password with the system. For example, if a user pays for online purchases through a bank transfer, the user has to register his or her bank account number with the system. If a user pays for online purchases by a credit card, he or she has to register the type of a credit that the user uses and his or her credit card number or the like.

[0003]

[Problem To Be Solved by the Invention] Conventional online purchase systems require users to select only one method of payment when registering a method of paying for online purchases. For example, a user who wants to pay through a bank transfer is allowed to select only one his or her bank account. A user who wants to pay by a credit card is allowed to select his or her credit card number of only one type of credit. Or a type of payment which is bank transfer, credit, or the like may be

fixed. Because payment systems for conventional online purchase systems require the selection of only one method of payment as above, it might be very inconvenient for users. The present invention has been devised to solve this problem and has an objective to provide a payment system that enables users to easily select an arbitrary one of multiple payment methods.

[0004]

[Means for Solving the Problem] To solve the above problem, the invention according to claim 1 is an online payment system comprising a payment server and a plurality of terminal devices connected to the payment server via a communications line, the payment server including a storage means storing user ID numbers and passwords and a plurality of entries of payment information per user, wherein, when a payment request including a user ID number and password is input to a terminal device, if the entered user ID number and password matches with those stored in the storage means, the payment server carries out payment, according to payment information selected beforehand out of the plurality of entries of payment information associated with the user ID number. By way of the online payment system as recited in claim 1, the payment server carries out payment, according to the payment information that the user has selected beforehand out of the plurality of payment information registered. Thus, if the user has registered multiple payment methods beforehand, the user can easily select an arbitrary one of the multiple payment methods. The invention according to claim 2 is the online payment system as recited in claim 1 in which the payment

server carries out combination payment, according to two or more entries of payment information selected beforehand. By way of the online payment system as recited in claim 2, the payment server carries out combination payment, according to two or more entries of payment information selected beforehand by the user out of multiple entries of payment information registered.

Thus, the user can easily select arbitrary ones of the multiple payment methods. Because combination payment by multiple payment methods can be performed, the user does not need to always pay attention to the remaining value, usable amount of money, etc. for each payment method. The invention according to claim 3 is an online payment system comprising a payment server and a plurality of terminal devices connected to the payment server via a communications line, the payment server including a storage means storing user ID numbers and passwords and a plurality of entries of payment information per user, wherein, when a payment request including a user ID number and password is input to a terminal device which is one of the terminal devices, if the entered user ID number and password matches with those stored in the storage means, the payment server sends entries of payment information associated with the user ID number, stored in the storage means, to the terminal device and carries out payment according to payment information selected on the terminal device, wherein the terminal device outputs the entries of payment information received from the payment server to allow for the selection of one or more of the entries. By way of the online payment system according to claim

3. the terminal device outputs the entries of payment information registered by the user to allow for the selection of one or more of the entries and sends the selected entry or entries of payment information to the payment server, and the payment server carries out payment, according to the selected entry or entries of payment information. Thus, users can select an arbitrary payment method of multiple payment methods each time payment is performed. The invention according to claim 4 is the online payment system as recited in claim 3, wherein the terminal device, upon a click on an option to select one entry of payment information, outputs the entries of payment information received from the payment server to allow for the selection of one entry of payment information and sends the selected one entry of payment information to the payment server, upon a click on an option to select multiple entries of payment information, outputs the entries of payment information received from the payment server to allow for the selection of multiple entries of payment information and sends the selected multiple entries of payment information to the payment server, and the payment server, when having received one entry of payment information from the terminal device, carries out payment according to the one entry of payment information received, when having received multiple entries of payment information from the terminal device, carries out combination payment according to the multiple entries of payment information received. By way of the online payment system as recited in claim 4, if the user prefers payment by one entry

of payment information, the terminal device outputs the payment information to allow for the selection of one entry of the payment information, and, if the user prefers combination payment according to multiple entries of payment information, the terminal device outputs the payment information to allow for the selection of multiple entries of the payment information. Thus, the user can select whether to pay by one payment method or apply combination payment by multiple payment methods, each time payment is performed. The invention according to claim 5 is the online payment system as recited in claim 3, wherein the terminal device outputs the entries of payment information received from the payment server to allow for the selection of one or more of the entries, if one entry of payment information is selected, sends the selected one entry of payment information to the payment server, if multiple entries of payment information are selected, sends the selected multiple entries of payment information to the payment server, and the payment server, when having received one entry of payment information from the terminal device, carries out payment by the one entry of payment information received, when having received multiple entries of payment information from the terminal device, carries out combination payment by the multiple entries of payment information received. By way of the online payment system as recited in claim 5, the terminal device outputs the payment information to allow for one entry or multiple entries of the payment information and sends the selected one entry or multiple entries of payment information to the payment server,

and the payment server, when having received one entry of payment information, carries out payment according to the one entry of payment information, when having received multiple entries of payment information, carries out combination payment according to the multiple entries of payment information. Thus, the user can select whether to pay by one payment method or apply combination payment by multiple payment methods only by selecting one or more entries of payment information. The invention according to claim 6 is the online payment system as recited in claim 2, 4, or 5, wherein the payment server carries out combination payment, according to selected multiple entries of payment information and payment accounts assigned to the entries of payment information. By way of the online payment system as recited in claim 6, it is possible to select multiple payment methods for combination payment and assign payment accounts by each payment method; therefore, this is convenient for the user. The invention according to claim 7 is the online payment system as recited in any of claims 1 to 6, wherein payment information stored in the storage means includes payment type codes and payment codes. By way of the online payment system as recited in claim 7, processing on the payment server becomes simpler. The invention according to claim 8 is the online payment system as recited in any of claims 1 to 7, wherein the terminal device, upon a click for registration of an entry of payment information, displays a registration screen for a type of payment corresponding to the entry of payment information to be registered, and the payment server stores the entry of

payment information including a payment code entered on the registration screen and a payment type code specific to the registration screen in association with the user ID number into the storage means. By way of the online payment system as recited in claim 8, processing on the payment server becomes simpler.

[0005]

[Embodiments of the Invention] Embodiments of the present invention will be described hereinafter with the drawings. FIG. 1 shows one embodiment of the present invention. An online payment system of this embodiment is composed of a payment server 10, user terminals (terminal devices) 20, 30, and 40, and a communications line 50 or the like connecting the payment server 10 and the user terminals 20, 30, and 40. The payment server 10 includes a processing means (CPU) 11, an input and display means or the like 12, and a storage means 13. In the storage means 13, user information (membership information) including user ID numbers (membership numbers) and passwords per user and payment information representing payment methods per user, goods information (content information) such as the names, prices, and descriptions of purchasable goods and the number of balls as money equivalents, history information such as purchase histories per user and sales histories per item of goods, etc. are stored. The user terminals 20, 30, and 40 respectively include processing means (CPUs) 21, 31, and 41, input and display means or the like 22, 32, and 42, and others. As the user terminals 20, 30, and 40, personal computers or the

like for home use can be used and these terminals may be installed at convenience stores, game arcades, and the like.

[0006] An example of the membership information stored in the storage means 13 is shown in FIG. 2. As shown in FIG. 2, for each user (membership), the user ID number (membership number) and password and payment information representing payment methods registered by the user, for example, payment by a credit card, payment through a bank account, payment via telephone bill, payment using accumulated balls as money equivalents, etc. are stored. As information for payment by a credit card, for example, a credit card number, a password, a code identifying payment by the credit card, etc. are stored. As information for payment through a bank account, for example, a bank account number, a password, and a code identifying payment through the bank account, etc. are stored. As information for payment via telephone bill, for example, a telephone line number, a password, ID, and a code identifying payment via telephone bill, etc. are stored. As information for payment using accumulated balls as money equivalents, a hall membership number, a password, a code identifying payment using accumulated balls, etc. are stored. Goods information may be stored on another server such as, for example, a goods server. Instead of the payment server 10. In this specification, credit card numbers, bank account numbers, telephone line numbers, and hall membership numbers, and the like are termed "payment codes." Meanwhile, codes identifying payment by a credit card, payment through a bank account, payment via telephone bill, payment using accumulated balls,

etc. are used to identify different types of payment methods, which are termed as "payment type identification codes." Storing passwords for payment information may be omitted.

[0007] Next, how the system of this embodiment operates will be described. Since the user terminals 20, 30, and 40 operate in the same manner, the operation of one user terminal 20 will be described. To subscribe to an online purchase system, for example, on a "menu selection" screen being displayed on the display means of the user terminal 20, a user selects an item "online membership application." Then, an "online membership application" screen which is illustrated in FIG. 3 is displayed. In the "online membership application" screen, the user can select a method of payment for goods purchased on line and also change membership (user) information or the like. In this embodiment, as methods of payment for goods purchased on line, paying through a bank account, paying by a credit card, paying via telephone bill (purchase is billed, added to telephone charges), paying using accumulated balls as money equivalents (paying for online purchase by using the accumulated balls as a hall player membership) are possible to be used. The hall player membership refers to one who owns a membership card such as an IC card issued by a game arcade such as a pachinko parlor. The hall player membership can use the hall membership number and its password stored on the membership card issued by the game arcade as a user (membership) ID number and password when making an online membership application. In this case, the hall player membership can pay for online purchase by using

accumulated balls as money equivalents (balls that the hall player membership has acquired at the game arcade can be deposited as accumulated balls. These balls can be exchanged for prizes and also can be used at another chance of playing the game).

[0008] On the "online membership application" screen, when the user chooses "new membership application" under the item "pay through a bank account" and "OK," a "bank transfer-new membership application" screen which is illustrated in FIG. 4 is displayed. In the "bank transfer-new membership application" screen, the user should enter necessary information including a membership number (user ID number), password, name, address, etc. The user can arbitrarily enter a membership number and password. To cancel entered information, choose "Cancel." To return to the "online membership application" screen, choose "Return to Online Application Screen." When the user chooses "Register" after entering necessary information, the entered information is sent from the user terminal 20 to the payment server 10. When an acknowledgement signal is sent back from the payment server 10, the "menu selection" screen is displayed on the display means of the user terminal 20. At a later date, a form for bank account registration which should be filled with a bank name, account number, etc. required for bank transfer will be mailed to the user. After filling the form for bank account registration with necessary information, the user should return it. The above screen in FIG. 4 may be configured so that a bank name, account

number, etc. required for bank transfer can be entered with the membership number and password from the user terminal 20. The payment server 10 stores the thus provided payment information such as the account number and the code identifying payment through a bank account in association with the user ID number into the storage means 13. For a new membership, his or her password is also stored in association with the user ID number into the storage means 13; the same will apply to other new membership application operations which will be described later. Membership registration may be conditioned as follows: only a membership who has been assigned a membership number and a password can register types of payment methods.

[0009] On the "online membership application" screen, when the user chooses "new membership application" under the item "pay by a credit card" and "OK," a "credit-new membership application" screen which is illustrated in FIG. 5 is displayed. In the "credit-new membership application" screen, the user should enter necessary information including a membership number, password, name, address, credit card number, etc. When the user chooses "Register" after entering necessary information, the entered information is sent to the payment server 10. When an acknowledgement signal is sent back from the payment server 10, the "menu selection" screen is displayed on the display means of the user terminal 20. The payment server 10 stores the thus provided payment information such as the credit card number and the code identifying payment by a credit card in association with the user ID number into the storage

means 13.

[0010] On the "online membership application" screen, when the user chooses "new membership application" under the item "pay via telephone bill" and "OK," a "payment via phone bill-new membership application" screen which is illustrated in FIG. 6 is displayed. In the "payment via phone bill-new membership application" screen, the user should enter necessary information including a membership number, password, telephone line number, ID, subscriber name, etc. When the user chooses "Register" after entering necessary information, the entered information is sent to the payment server 10. When an acknowledgement signal is sent back from the payment server 10, the "menu selection" screen is displayed on the display means of the user terminal 20. The payment server 10 stores the thus provided payment information such as the telephone line number, ID, and the code identifying the telephone line in association with the user ID number into the storage means 13.

[0011] If either the membership number or the password sent from the user terminal 20 is already used by another member, the user is requested to change the membership number or the password. The request to change the membership number or the password may be sent from the payment server 10 to the user terminal 20 or mailed to the user at a later date. Sending the request to change the membership number or the password is performed as follows: for example, the payment server 10 sends a change request signal instead of the acknowledge signal to the user terminal 20 and this signal causes the membership

number or the password to blink displayed on the display means of the user terminal 20 and has a message displayed. The user changes the blinking membership number or password and chooses "Register" again. In an instance where the user chooses "hall player membership application" on the "online membership application" screen, the user can enter his or her hall membership number and password of a membership card issued by a game arcade as the membership number and password. When the hall player membership application has been completed, the user can pay for online purchases by using his or her accumulated balls as money equivalents. If a membership application is made by a user who already uses the method of payment via telephone bill, then the user will enter his or her membership number and password used for the method of payment via telephone bill. If a membership application is made by a user who already uses the method of payment via telephone bill and is a hall player membership, then the user may enter his or her membership number and password used for the method of payment via telephone bill or his or her hall membership number and password of a membership card.

[0012] One payment method or multiple payment methods may be registered. In an instance where multiple payment methods are registered, different codes for different payment types may be registered as payment information in one manner, multiple payment codes with a same payment type code may be registered in another manner, or the payment methods may be registered by the combination of these manners. To register multiple payment

methods, the "new membership application" screen may be used to allow for additional registration or another screen allowing for registering multiple payment methods may be prepared. When multiple payment methods have been registered, a membership ID number, his or her password, and multiple items of payment information representing the payment methods are stored as membership information into the storage means 13, as shown in FIG. 2.

[0013] With multiple payment methods registered, the user has to determine what payment method is used for payment until a due date for payment. Payment may be performed by one payment method in one manner or by combination payment by multiple payment methods in another manner. The combination payment method is to pay for online purchases by the sum of amounts paid by each payment method. If the user prefers to pay by one payment method, the user has to select one of the multiple payment methods registered. One of the multiple payment methods may be selected beforehand or at the time of payment. To allow the user to select one payment method beforehand, for example, the screen is configured to allow the selection of one of the multiple payment methods registered. To allow the user to select one payment method at the time of payment, for example, the screen is configured to show the multiple payment methods registered on the terminal device at the time of payment and allow the user to select one of the multiple payment methods. The screen may be configured to allow the user to choose the manner of selecting one payment method beforehand or the manner

of selecting one payment method at the time of payment.

[0014] If the user prefers to apply combination payment by multiple payment methods, the user has to select two or more ones to be used for payment out of the multiple payment methods registered. Two or more ones to be used for payment may be selected beforehand or at the time of payment. To allow the user to select two or more payment methods to be used for payment beforehand, for example, the screen is configured to allow the selection of two or more ones to be used for payment out of the multiple payment methods registered. To allow the user to select two or more payment methods to be used for payment at the time of payment, for example, the screen is configured to show the multiple payment methods registered on the terminal device at the time of payment and allow the user to select two or more ones to be used for payment out of the multiple payment methods. The screen may be configured to allow the user to choose the manner of selecting two or more payment methods to be used for payment beforehand or the manner of selecting two or more payment methods at the time of payment. In the case of combination payment by multiple payment methods, it is preferable to configure the screen to allow the user to select two or more payment methods for combination payment and fix the amounts of payment per payment method selected.

[0015] Membership numbers (user ID numbers), passwords, and payment information representing payment methods, for example, payment-through-bank information including an account number,

the code identifying payment through a bank account, etc., payment-by-credit-card information including a credit card number, the code identifying payment by a credit card, etc., payment-via-telephone-bill information including a telephone line number, ID, the code identifying payment via telephone bill, etc., and payment-by-accumulated-bills information including a bill membership number, the code identifying payment by accumulated bills, etc., which have been entered as above, are stored as membership information in association with each membership into the storage means 13 of the payment server 10. Outputting goods information, inputting membership numbers and passwords, selecting a payment method or methods, and similar operations may be performed via a voice interface.

[0016] Next, the following will describe a first embodiment of operation of the user terminal 20 and the payment server 10 to carry out online purchase of goods and payment from the user terminal 20. In the first embodiment, it is assumed that the user pays by one of the multiple payment methods registered. For example, assume that the "menu selection" screen is displayed on the display means 20 of the user terminal 20. When "Purchase Goods" is chosen, a "list of goods" screen which is, for example, illustrated in FIG. 7 is displayed. In the "list of goods" screen, the names, prices, descriptions, etc. of purchasable items of goods are displayed. When the user wants to buy an item of goods, the user should select the name of the item that the user wants to buy (for example, by positioning the cursor on the item name and clicking) and choose "Purchase."

If the user does not want to buy, the user should choose "Cancel." When the user wants to know details about an item of goods, the user should choose "Detailed Item Description" after selecting the item name. When "Detailed Item Description" is chosen, a "detailed item description" screen which is, for example, illustrated in FIG. 8 is displayed. When the user wants to buy the item, the user should choose "Purchase." To return to the "list of goods" screen, the user should choose "Return to Previous Screen."

[0017] When "Purchase" is chosen on the "list of goods" screen shown in FIG. 7 or the "detailed item description" screen shown in FIG. 8, a "purchase" screen which is, for example, illustrated in FIG. 9 is displayed. When the user enters his or her membership number and password and chooses "OK" on the "purchase" screen, that is, when a payment request including the membership number (user ID number) and password is input to the user terminal 20, the user terminal 20 sends the entered membership number and password to the payment server 10. The payment server 10 compares the membership number and password which have been entered at the user terminal 20 to the membership number and password stored in the storage means 13. When the user-specified membership number and password have matched with those registered, if only one entry of payment information is registered as the payment information associated with the membership number, the payment server 10 sends an authentication OK signal to the user terminal 20. When the membership number and password do not match with those

registered, the payment server 10 sends an authentication NG signal to the user terminal 20. When only one entry of payment information is registered as the payment information, membership information consisting of the user ID number and password, a payment code (code representing a credit card number, account number, telephone line number, or the like), and a payment type code (code identifying payment through a bank account, payment by a credit card, payment via telephone bill, or other manner) is stored in the storage means 13, as is illustrated in FIG. 10. Upon receiving the authentication OK signal, the user terminal 20 displays an "amount payable confirmation" screen which is, for example, illustrated in FIG. 11. In the "amount payable confirmation" screen shown in FIG. 11, the name of an item that the user wants to buy and its price are displayed. The registered payment information may be sent from the payment server 10 to the user terminal 20 and the payment method corresponding to the payment information may be displayed in the "amount payable confirmation" screen. For example, in the place of AAA in the "amount payable confirmation" screen shown in FIG. 11, the applied payment method such as bank transfer, credit card, or telephone bill may be shown with a bank name, credit company name, etc. When the user chooses "Purchase" on the "amount payable confirmation" screen, the user terminal 20 sends a purchase request to the payment server 10. In consequence, the payment server 10 carries out payment for the purchase, according to the registered payment information. Then, it instructs to

deliver the purchased item. If the purchased item is information such as software, image data, and music data, the system may be configured to download such information to the user terminal 20. If the user terminal 20 receives the authentication NG signal, it displays the "purchase" screen to prompt the user to enter his or her membership number and password again or displays the "menu selection" screen. [0018] When the user-specified membership number and password have matched with those registered, but if multiple entries of payment information, for example, multiple codes identifying different payment types or multiple payment codes with a code identifying one payment type are registered as the payment information associated with the membership number, and if one of the multiple entries of payment information has not been selected yet, the payment server 10 sends all the entries of payment information registered, associated with the membership number, together with the authentication OK signal to the user terminal 20. When the user terminal receives the authentication OK signal and the payment information, it displays an "amount payable confirmation" screen which is, for example, illustrated in FIG. 12. In this case, in the "amount payable confirmation" screen, the name of an item that the user wants to buy and its price, and also payment methods from the received payment information are displayed. FIG. 12 shows an example where multiple payment type codes for different payment types are registered as the payment information and this screen presents information for registered payment methods, that is,

payment by a credit card, payment through a bank transfer, and payment via telephone bill. When the user selects one of the payment methods presented on the "amount payable confirmation" screen for the current purchase and chooses "Purchase," the user terminal 20 sends payment information corresponding to the selected payment method to the payment server 10. In consequence, the payment server 10 carries out payment for the purchase, according to the selected payment information, that is, the payment method corresponding to the selected payment information.

[0019] On the "amount payable confirmation" screen, registered payment methods are presented in a manner understandable to the user. Payment methods such as credit, bank transfer, and telephone bill may be presented; a credit number, account number, telephone number, etc may be presented; or a combination of these may be presented. If multiple payment codes with one payment type code are registered, for example, in an instance where multiple account numbers are registered, the "amount payable confirmation" screen shown in FIG. 12 may be configured to present the registered account numbers, allowing the user to select an arbitrary account number. Or, the "amount payable confirmation" screen shown in FIG. 12 may be configured to present the registered account numbers in response to selecting the bank transfer presented on the screen, thus allowing the user to select an arbitrary account number. In this case, it is preferable that the "amount payable confirmation" screen shows the user that multiple account

numbers, credit numbers, etc. are registered.

[0020] For a user who entered his or her hall membership number and password of a membership card issued by a game arcade as the membership number and password at the time of membership application, it is possible to register or select payment by accumulated balls as a payment method. If only one entry of payment-by-accumulated-balls information is registered as payment information, when a payment request including the membership number and password is input to the user terminal 20, a "confirmation screen for exchanging accumulated balls for goods" which is, for example, illustrated in FIG. 13 is displayed. In the "confirmation screen for exchanging accumulated balls for goods" shown in FIG. 13, the name of an item that the user buys, the number of balls to be used for exchange, the hall name for payment by balls, the number of accumulated balls before exchange, the number of accumulated balls after exchange, etc. are displayed. In this case, the payment server 10 retrieves the number of accumulated balls that the user has acquired at a game arcade hall from a membership server or the like of the game arcade to which the user registered as a membership, based on the membership number, or the hall membership number. Also, the server retrieves the number of balls to be used for exchange for the item that the user wants to buy from the goods information stored in the storage means 13. Then, the number of balls to be used for exchange, the number of accumulated balls before exchange, and the number of accumulated balls after exchange are sent to the user terminal

and displayed. If the rate of exchanging accumulated balls for goods differs from one member to another, it is preferable to calculate the number of balls to be used for exchange for the item that the user wants to buy, based on goods information, and the rate of exchanging accumulated balls for goods, etc. and display the number of balls to be used for exchange, the number of accumulated balls before exchange, and the number of accumulated balls after exchange. Authentication of the member number and password may be performed by the membership server or the like of the game arcade. When the user chooses "Exchange" on the "confirmation screen for exchanging accumulated balls for goods," a purchase request is sent from the user terminal 20 to the payment server 10. In consequence, the payment server 10 sends the number of balls to be used for exchange for goods to the membership server or the like of the game arcade identified from the membership number, or the hall membership number. The membership server or the like of the game arcade subtracts the number of balls to be used for exchange, received, from the number of accumulated balls that the hall member in question has, thus updating the number of accumulated balls. It may also be possible that membership information is collected and stored on the membership server 10 for a suitable period of time and exchanging balls for goods for a hall member is performed, according to the number of accumulated balls included in the membership information stored.

[0021] If other entries of payment information besides payment-by-accumulated-balls information are registered and

one of the entries of payment information has not been selected yet, payment methods corresponding to the registered entries of payment information are presented in the payment method portion of the "amount payable confirmation" screen shown in FIG. 12. The payment server 10 carries out payment for the purchase by the payment method selected by the user. In the case where payment-by-accumulated-balls information is registered, it is preferable that the number of balls to be used for exchange, the number of accumulated balls, etc. are presented in the "list of goods" screen, the "detailed item description" screen, the "amount payable confirmation" screen, etc. These screens are configured to allow for the display of an "accumulated balls quantity confirmation" screen which is, for example, illustrated in FIG. 14. In the "accumulated balls quantity confirmation" screen shown in FIG. 14, the names of game arcades to which the user identified by a membership number registered as a membership, the group names of the game arcades, the user's hall membership number for each game arcade, and the number of accumulated balls at each game arcade are listed. By thus showing the number of accumulated balls at each game arcade, the user can easily select which arcade at which the accumulated balls should be exchanged for goods.

[0022] When the user-specified membership number and password have matched with those registered, and if one of multiple entries of payment information registered, associated with the membership number has been selected beforehand, the "amount payable confirmation" screen which is, for example, illustrated

In FIG. 11 is displayed on the user terminal 20. In this case, the name of an item that the user wants to buy and its price are displayed in the "amount payable confirmation" screen. In the place of AAA in the "amount payable confirmation" screen, it is preferable that a payment method corresponding to one entry of payment information selected beforehand is shown, for example, bank transfer, credit, telephone bill, or other manner corresponding to the payment type code included in the payment information. If multiple payment codes with one payment type code are registered, for example, multiple account numbers, credit cards, etc. are registered, it might be difficult for the user to identify what account number or what credit card should be used for payment. Thus, it is preferable to present the payment information to make the user easily know what entry of payment information has been selected. For example, a bank name OO, a credit company name AA, or the like is presented or an account number or a credit card number is displayed. When the user chooses "Purchase" on the "amount payable confirmation" screen, a purchase request for the item is sent to the payment server 10. In consequence, the payment server 10 carries out payment for the purchase, according to the payment information selected beforehand.

[0023] Next, the following will describe a second embodiment of operation of the user terminal 20 and the payment server 10 to carry out online purchase of goods and payment from the user terminal 20. In the second embodiment, it is assumed that the user can pay by one of the multiple payment methods registered

or combination payment by selected multiple payment methods. As is the case for the first embodiment, after choosing "Purchase," when the user inputs a payment request including his or her membership number and password to the user terminal 20, the user terminal 20 sends the entered membership number and password to the payment server 10. When the received membership number and password has matched with the membership number and password stored in the storage means 13, if one entry of payment information is registered or selected as the payment information associated with the membership number, the payment server 10 carries out payment in the same way as described for the first embodiment. When the user-specified membership number and password has matched with those registered and multiple entries of payment information are registered as the payment information associated with the membership number, but if one entry of payment information is not selected, the payment server 10 sends the authentication OK signal and all the entries of payment information registered, associated with the membership number, to the user terminal 20. Upon receiving the authentication OK signal and the multiple entries of payment information, the user terminal 20 displays an "amount payable confirmation" screen which is, for example, illustrated in FIG. 15. In the "amount payable confirmation" screen shown in FIG. 15, the name of an item that the user wants to buy, its price, and payment method options are displayed. In the "amount payable confirmation" screen shown in FIG. 15, the payment method options are presented so that the user can choose to pay

by one payment method or apply combination payment by multiple payment methods.

[0024] When the user chooses "Select One Payment Method" on the "amount payable confirmation" screen, a "payment method selection" screen which is, for example, illustrated in FIG. 16 is displayed on the user terminal 20. In the "payment method selection" screen shown in FIG. 16, multiple entries of payment information registered, associated with the membership number are listed, allowing the user to select one of the entries of payment information. The "payment method selection" screen shown in FIG. 16 shows the user that payment-by-credit-card information, payment-through-bank information, and payment-by-accumulated-balls information are registered. In this case, the multiple entries of payment information registered may be presented in either or combination of the following manners: one manner in which credit, bank transfer, etc. corresponding to payment type codes are listed; and another manner in which an account number, credit card number, etc. corresponding to payment codes are listed. If multiple payment codes for credit card numbers, account numbers, etc. with one payment type code are registered, it is preferable that information corresponding to the credit card numbers or account numbers, e.g., credit company names, bank names, or others are listed. After selecting one payment method, when the user chooses "Purchase," the user terminal 20 sends payment information corresponding to the selected payment method to the payment server 10. In consequence, the payment server 10

carries out payment for the purchase, according to the payment information selected.

[0025] When the user chooses "Select Multiple Payment Methods" on the "amount payable confirmation" screen, a "combination payment methods selection" screen which is, for example, illustrated in FIG. 17 is displayed on the user terminal 20. In the "combination payment methods selection" screen, multiple entries of payment information registered, associated with the membership number, sent from the payment server 10, are listed, allowing the user to select two or more of the entries of payment information. In FIG. 17, the screen shows the user that payment-by-credit-card information, payment-through-bank information, and payment-by-accumulated-balls information are registered. After selecting two or more payment methods for combination payment, when the user chooses "Purchase," an "assign payment amounts" screen which is, for example, illustrated in FIG. 18 is displayed on the user terminal 20. In the "assign payment amounts" screen shown in FIG. 18, the selected payment methods are listed, allowing the user to assign payment amounts by each of the selected payment methods. The "assign payment amounts" screen shown in FIG. 18 shows the user that payment by a credit card, payment through a bank transfer, and payment by accumulated balls are selected as the payment methods for combination payment. The user assigns payment amounts for each payment method on this "assign payment amounts" screen. In this case, a quantity of accumulated balls can be assigned to payment by accumulated balls. For payment by

accumulated balls, it is preferable to present the number of balls to be used for exchange for goods, equivalent to the price of the item to be purchased, and the assigned quantity of accumulated balls. After ensuring that a total of the payment amounts by each payment method equals the price of the item to be purchased, when the user clicks on "Purchase," the user terminal 20 sends the entries of payment information corresponding to the selected payment methods and the payment amounts for each entry of payment information to the payment server 10. In consequence, the payment server 10 carries out combination payment for the purchase, according to the selected entries of payment information and the payment amounts assigned for each entry of payment information. In the "assign payment amounts" screen shown in FIG. 18, it is preferable to present a deposit balance, the number of accumulated balls, a usable amount of money, etc. in relation to each payment method. [0026] While payment methods for combination payment are selected at the time of payment in the foregoing embodiment, these methods may be selected beforehand. In an instance where payment methods for combination payment are selected beforehand, assigning payment amounts for each payment method may be performed at the time of payment or may be omitted. In the instance where payment methods for combination payment are selected beforehand, the "amount payable confirmation" screen shown in FIG. 11 is displayed, instead of the "amount payable confirmation" screen shown in FIG. 15. It is preferable that this screen presents payment methods corresponding to

previously selected multiple entries of payment information in a manner understandable to the user. In the case of assigning the payment amounts at the time of payment, when "Purchase" is chosen on the "amount payable confirmation" screen shown in FIG. 11, the "assign payment amounts" screen shown in FIG. 18 is displayed. The user assigns the payment amounts for each payment method on the "assign payment amounts" screen. The user terminal 20 sends a purchase request including the payment amounts and the entries of payment information corresponding to the payment methods to which the payment amounts have been assigned. The payment server 10 carries out payment for the purchase, according to the entries of payment information to which the payment amounts have been assigned. In the case where assigning the payment amounts is omitted, for example, priority ranks are assigned to the selected payment methods. In this case, it is preferable to present multiple payment methods selected beforehand and priority ranks or the like of the payment methods in a manner understandable to the user in the "amount payable confirmation" screen shown in FIG. 11. When "Purchase" is chosen on the "amount payable confirmation" screen shown in FIG. 11, the user terminal 20 sends a purchase request to the payment server 10. Upon receiving the purchase request, the payment server 10 carries out payment for the purchase by a payment method having the highest (or lowest) priority among the payment methods selected beforehand. If it is impossible to pay for the purchase within the maximum amount of money to be paid by this payment method (e.g., the item price is higher

than the usable amount of money; the number of balls to be used for exchange for the item is greater than the number of accumulated balls; or a similar case), the payment server carries out remaining payment for the purchase by another payment method having the next highest (or lowest) priority among the selected payment methods. Subsequently, the payment server continues the payment in the same way in order according to the priority until completing the payment for the purchase. [0027] While a decision of whether to pay by one payment method or apply combination payment by multiple payment methods is made by choosing "Select One Payment Method" or "Select Multiple Payment Methods" on the "amount payable confirmation" screen, this decision operation may be omitted. For example, when the user-specified membership number and password has matched with those registered and multiple entries of payment information are registered, but if one of the entries of payment information has not been selected yet, the "payment methods selection" screen which is, for example, illustrated in FIG. 17 is displayed. If the user prefers to pay by one payment method, the user should select one payment method in the "payment methods selection" screen and choose "Purchase." Recognizing that one payment method has been selected, the user terminal 20 sends a purchase request including payment information corresponding to the one payment method selected to the payment server 10. When having received one entry of payment information, the payment server 10 carries out payment according to the one entry of payment information selected. If

the user prefers to apply combination payment by multiple payment methods, the user should select two or more payment methods for combination payment on the "payment methods selection" screen and choose "Purchase." Recognizing that multiple payment methods have been selected, the user terminal 20 displays the "assign payment amounts" screen shown in FIG. 18. In the column of payment methods in the "assign payment amounts" screen, the multiple payment methods selected are listed. On the "assign payment amounts" screen, the user should assign payment methods for each payment method selected and choose "Purchase." The user terminal 20 sends a purchase request including the entries of payment information corresponding to the multiple payment methods selected and the payment amounts assigned to the entries of payment information to the payment server 10. The payment server 10 carries out payment, according to the multiple entries of payment information and the payment amounts assigned to the entries of payment information received. In this way, payment by one payment method or combination payment by multiple payment methods can be determined automatically, according to the number of payment methods selected; therefore, this makes user operation easy. [0028] While the above description concerns the operation when a user performs online purchase of goods and payment from the user terminal, moreover, the user can check sales records, purchase records, etc. For example, after choosing "Sales Record" on the "menu selection" screen, when the user identifies

an item on an "item specification" screen, the sale record of the item for a given period is retrieved from history information for items stored in the storage means 13 and a "sales record confirmation" screen which is illustrated in FIG. 19 is displayed. In this way, the user can know sales records for each item. For example, after choosing "Sales Record" on the "menu selection" screen, when the user enters the user name on a "user specification" screen, the user's purchase record for a given period is retrieved from history information stored in the storage means and a "customer purchase record confirmation" screen which is shown in FIG. 20 is displayed. In this way, each user can know his or her purchase records.

[0030] Display screens, the displaying method, the method of selecting an item, the method of selecting a payment method, etc. involved in the operation for online payment are not limited to those described in the foregoing embodiments and can be varied. Moreover, the present invention can also be embodied as online payment methods. That is, the invention is embodied in an online payment method for payment using a payment server and a plurality of terminal devices connected to the payment server via a communications line, wherein user ID numbers and passwords and multiple entries of payment information per user are stored on the payment server, when a payment request including a user ID number and password is input to a terminal device, if the entered user ID number and password matches with those stored beforehand, the payment server carries out payment, according to payment information selected beforehand out of the

multiple entries of payment information associated with the user ID number. The invention is also embodied in an online payment method for payment using a payment server and a plurality of terminal devices connected to the payment server via a communications line, wherein user ID numbers and passwords and multiple entries of payment information per user are stored on the payment server, when a payment request including a user ID number and password is input to a terminal device, if the user ID number and password entered to the terminal device matches with those stored beforehand, the payment server sends entries of payment information associated with the user ID number to the terminal device, the terminal device sends an selected entry of payment information back to the payment server, and the payment server carries out payment, according to the selected entry of payment information. In the above online payment method, the terminal device, upon a click on an option to select one entry of payment information, outputs multiple entries of payment information associated with the user ID number to allow for the selection of one of the multiple entries for payment and sends the selected one entry of payment information to the payment server, upon a click on an option to select multiple entries of payment information, outputs multiple entries of payment information associated with the user ID number to allow for the selection of two or more of the multiple entries for payment and sends the selected multiple entries of payment information to the payment server, and the payment server carries out payment by the one entry of payment

information or combination payment by the multiple entries of payment information, according to the payment information received from the terminal device. In the above online payment method, the terminal device outputs the entries of payment information received from the payment server to allow for the selection of one or more of the entries, if one entry of payment information is selected, sends the selected one entry of payment information to the payment server, if multiple entries of payment information are selected, sends the selected multiple entries of payment information to the payment server, and the payment server carries out payment by the one entry of payment information or combination payment by the multiple entries of payment information, according to the payment information received from the terminal device.

[0030]

[Effect of the Invention] As described above, by way of the online payment system according to claim 1, an arbitrary one of multiple payment methods can easily be selected. By way of the online payment system according to claim 2, combination payment by multiple payment methods can be performed. By way of the online payment system according to claim 3, an arbitrary one of multiple payment methods can be selected each time payment is performed. By way of the online payment system according to claim 4, selection of whether to pay by one payment method or apply combination payment by multiple payment methods can be made each time payment is performed. By way of the online payment system according to claim 5, selection of whether to

pay by one payment method or apply combination payment by multiple payment methods can be made only by selecting one or more entries of payment information. By way of the online payment system according to claim 6, multiple payment methods for combination payment can be selected and payment amounts by each combination made can be assigned. By way of the online payment system according to claims 7 and 8, processing on the payment server becomes simpler.

[Brief Description of the Drawings]

FIG. 1 shows one embodiment of an online payment system.

FIG. 2 illustrates membership information including multiple entries of payment information registered.

FIG. 3 illustrates an online membership application screen.

FIG. 4 illustrates a "bank transfer-new membership application" screen.

FIG. 5 illustrates a "credit-new membership application" screen.

FIG. 6 illustrates a "payment via phone bill-new membership application" screen.

FIG. 7 illustrates a "list of goods" screen.

FIG. 8 illustrates a "detailed item description" screen.

FIG. 9 illustrates a "purchase" screen.

FIG. 10 illustrates membership information including one entry of payment information registered.

FIG. 11 illustrates an "amount payable confirmation" screen, when only one payment method is registered or when one payment method is selected beforehand.

FIG. 12 illustrates an "amount payable confirmation" screen for a first embodiment.

FIG. 13 illustrates a confirmation screen for exchanging accumulated balls for goods.

FIG. 14 illustrates an "accumulated balls quantity confirmation" screen.

FIG. 15 illustrates an "amount payable confirmation" screen for a second embodiment.

FIG. 16 illustrates a "payment method selection" screen.

FIG. 17 illustrates a "combination payment methods selection" screen.

FIG. 18 illustrates an "assign payment amounts" screen.

FIG. 19 illustrates a "sales record confirmation" screen.

FIG. 20 illustrates a "purchase history confirmation" screen.

[Description of Reference Numerals]

10 Payment server

13 Storage means

20, 30, 40 User terminals

[FIG. 1]

決済サーバ	Payment Server
会員情報	Membership Information
商品情報	Goods Information
履歴情報	History Information
利用者端末	User Terminal

[FIG. 2]

User ID No. Password Credit (Credit Card No., Password) Bank
Account (Account No., Password)

[FIG. 7]

List of Goods Screen

Name of Item	Price	Description
OO Game	¥300	Game oriented to kids
XX Game	¥1000	Game oriented to adults
ΔΔ Software	¥2000	Software for practical business affairs

Purchase Cancel Detailed Item Description Next Screen

[FIG. 3]

Online Membership Application

Pay through a bank account.

- ☐ New membership application
- ☐ Hall player membership application

Pay by a credit card

- ☐ New membership application
- ☐ Hall player membership application
- ☐ Application for payment by another credit card

Pay via telephone bill

- ☐ New membership application
- ☐ Hall player membership application

Change membership information

- ☐ Password
- ☐ Others

[FIG. 4]

Bank Transfer-New Membership Application

Membership No.

Password

Name (Furigana)

Name (Kanji)

Phone No.

E-mail

Birthday

ZIP Code

Address

FAX No.

Sexuality (1: Male 2: Female)

Register Cancel Return to Online Application Screen

[FIG. 5]

Credit-New Membership Application

Membership No.

Password

Name (Furigana)

Name (Kanji)

Phone No.

E-mail

Birthday

ZIP Code

Address

FAX No.

Sexuality (1: Male 2: Female)

Credit Card No.

Expiry Date

Register Cancel Return to Online Application Screen

[FIG. 6]

Payment via Phone Bill-New Membership Application

Membership No.

Password

Your Phone No.

Your Line Type (1: Analog 2: ISDN)
ID

Desired Start Date of Payment Service

Subscriber Name (Furigana)

Subscriber Name (Kanji)

JIP CODE

Subscriber Address

Contact to Applicant (Name)

Contact to Applicant (Phone)

User Name

Date of INS Line Connection Work Done

Register Cancel Return to Online Application Screen

[FIG. 11]

Amount Payable Confirmation Screen

Thank you for your purchase.

Please pay for your purchase by way of ΔΔΔ.

Name of Item	Price
OO Game	¥300

Purchase Cancel

[FIG. 12]

Amount Payable Confirmation Screen

Thank you for your purchase.

Select a payment method for your purchase.

Name of Item	Price
OO Game	¥300

Payment method:

Credit

Bank Transfer

Telephone Bill

Purchase Cancel

[FIG. 10]

User ID No.	Password	Payment Code (Credit, Bank Account, Telephone)	Payment Type Code
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[FIG. 8]

Detailed Item Description Screen

OOGame ¥300

File: xxxx.exe Size: 250 KB

Kid educational game most suitable for 3-10 aged children.

Purchase Return to Previous Screen

[FIG. 9]

Purchase Screen

For purchase order, enter your membership No. and password.

Membership No.	*****
Password	*****

O K

[FIG. 14]

Accumulated Balls Quantity Confirmation Screen

You have balls accumulated until now, which can be exchanged for your purchase.

Qty of Balls	Group Name	Arcade Name	Membership No.
3500	0000	000 Arcade	****
1300	AAAA	AAA Arcade	****
3000		Arcade	****

[FIG. 13]

Confirmation Screen for Exchanging Accumulated Balls for Goods

Than you for your purchase.

Your purchase is paid by your equivalent accumulated balls at the specified hall.

Price	Number of Balls To Be Used for Exchange	Name of Item
¥4000	1000	000 Game (Pachinko eno mitchi 2)

Hall Name Specified for Payment by Balls	Number of Accumulated Balls before Exchange	Number of Accumulated Balls after Exchange
XXX Hall (Nagoya)	2864	1864

Exchange

Cancel

[FIG. 17]

Combination Payment Methods Selection Screen

Your payment methods registered are listed below.

Select two or more for combination payment. ✓

Select	Type	Company Name	Membership No.
	Credit	0000	****
	Bank Transfer	ΔΔ Bank	****
	Accumulated Balls	Arcade	****

Purchase Cancel

[FIG. 15]

Amount Payable Confirmation Screen

Thank you for your purchase.

Select a payment method for your purchase.

Name of Item	Price
OO Game	¥300

Payment method

Select One Payment Method Select Multiple Payment Methods

[FIG. 16]

Payment Method Selection Screen

Your payment methods registered are listed below.

Select a payment method.

Select	Type	Company Name	Membership No.
	Credit	0000	****
	Bank Transfer	ΔΔ Bank	****
	Accumulated Balls	Arcade	****

Purchase Cancel

[FIG. 18]

Assign Payment Amounts Screen

Assign payment amounts by each payment method.

Payment Amount	Type	Company Name	Membership No.
500	Credit	0000	****

800	Bank Transfer	ΔΔ Bank	****
300	Accumulated Balls	Arcade	****

Purchase Cancel

[FIG. 19]

Sales Record Confirmation Screen

ID: 1234567 Sales Record for January, 1998

Name of Item	Date	Amount of Sales	Fee	Amount of Refund
Gomokunarabe (Game)				

Total				
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Return to Previous Screen

[FIG. 20]

Customer Purchase Record Confirmation Screen

ID: 1234567

山田太郎様

Customer Name: Yamada Taro

1998年1月のご利用履歴 Purchase Record for January, 1998

Date of Purchase	Name of Item Purchased	Payment Method	Amount of Yen	Balls	Hall at which Payment Was Done
	Gomokunarabe (Game)	Credit	500		
	Shogi (Game)	Accumulated Balls		100	XX Hall
	Chess (Game)	Accumulated Balls		300	XX Hall
	Horse Race Prediction (Information)	Bank Transfer	1500		
	Sunflowers, Gogh (Picture)	Credit	8600		

Total		Credit	9100		
Total		Bank Transfer	1500		
Total		Accumulated Balls		400	XX Hall

Return to Previous Screen